IDAHO DEPARTMENT
OF HEALTH AND WELFARE
DIVISION OF
ENVIRONMENTAL QUALITY

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Philip E. Batt, Governor

May 5, 1995

Ms. Lisa Green, Manager
Environmental Restoration Program
Department of Energy
Idaho Operations Office
850 Energy Drive
Idaho Falls, Idaho 83401-1563

SUBJECT: IDHW-DEQ Recommendation for OU 9-02 Track 2

Dear Ms. Green:

The Idaho Department of Health and Welfare, Division of Environmental Quality (IDHW-DEQ) has reviewed the revised *Preliminary Scoping Track 2 Summary Report for Operable Unit 9-02: EBR-II Leach Pit* (April 11, 1994) and this letter provides our recommendation. We received this document on June 6, 1994.

A removal action conducted during September 1993 essentially removed the contaminant source, considering the limited scope of this operable unit, as defined in the report; the scope was limited to the physical dimensions of the leach pit. Because the scope of the 9-02 operable unit was limited to the geometry of the pit itself, we recommend no further action under this operable unit. We do recommend further evaluation, however, of the potential risks posed by contaminants in the vadose zone beneath the pit and by contaminants associated with the inlet discharge pipe to the leach pit will be evaluated under the comprehensive WAG 9 RI/FS, the scoping of which is tentatively scheduled for June 21, 1995.

The enclosed attachment summarizes our recommendation. Should you have any questions, please contact me at (208) 528-2650.

Sincerely,

Shawn Rosenberger
Remediation Technical Supervisor
Remediation Bureau

Enclosure

cc: Ed Jones, EPA-Region X
Greg Bass, ANL-W
Dean Nygard, IDHW-DEQ (Boise)
Wayne Pierre, EPA-Region X
File, IDHW-DEQ (Boise)

IDHW-DEQ Evaluation of EBR-II Leach Pit (OU) 9-02
Track 2 Summary Report (Revised)
May 5, 1995

Background

The EBR-II Leach Pit was used for the routine disposal of radioactive contaminants from 1959 to 1973, with an additional one time discharge of tritiated water in 1975. The pit was developed into basalt in 1959 using explosives, and has dimensions of 40' x 18' x 15' deep. It has an irregular floor and is covered with a concrete slab lid. The pit floor contained an estimated eight inches of sludge contaminated with metals and radionuclides. A removal action conducted in September 1993 removed 9.6 yd^3 of sludge and 4.7 yd^3 of construction debris from the pit. The sludges were solidified by mixing with Portland cement and then disposed along with the construction debris at the RWMC. Approximately 1/16-inch of sludge remained on the floor of the pit following the sludge removal. The floor of the pit was then lined with 2-3 inches of bentonite clay and backfilled to grade.

Track 2 Investigation

The scope of the 9-02 operable unit was defined as being bound by the geometry and physical dimensions of the leach pit. Analytical results from sampling of the pit sludges by Golder Associates during the summer of 1991 were used. In addition, analytical results of six samples collected from sludges remaining on the pit's basalt floor following the removal of the sludges and prior to backfilling were used. These data were compared to limiting soil concentrations (LSC) generated by GWSCREEN modeling of the contaminants (ie., metals and radionuclides). The contaminants of concern which were identified included I-129, Np-237, Be, As and PCBs.

Risk Evaluation

Following the removal action, the only complete exposure pathway was exposure through ingestion of ground water under a future occupational and residential scenarios. GWSCREEN modeling using analytical results of the contaminants of concern (COC) and the Track 2 risk assessment process calculated a cumulative risk from all COCs of 6×10^{-6}.

Recommendation

IDHW recommends no further action on the EBR-II Leach Pit OU 9-02, as its scope is defined for this Track 2 operable unit. The contaminant source has essentially been removed by the removal action. Potential risks posed by contaminants from past releases from the leach pit (ie., contaminants in the vadose zone beneath the pit floor), will be evaluated in the comprehensive WAG 9 RI/FS, as discussed on page 1 of the Track 2 Summary Report. In addition, potential risks posed by contaminants associated with the inlet discharge pipe to the leach pit will also be further evaluated under the comprehensive WAG 9 RI/FS, as discussed on page 3 of the report.